Since due to equation (4) pragmatic information is the product of novelty E and confirmation B, the same amount of pragmatic information can be expressed either as much novelty and less confirmation or vice versa. However, if the total amount of pragmatic information is limited it follows immediately that events containing much novelty E cannot occur very often, which would mean very much confirmation B. For instance, if the "observers" in an RSPK case would "expect" more confirmation B of the focus system for a specific "surprising" phenomenon x, such that the product E(x) * B(x) would exceed the product I = A * R, the phenomenon may produce a displacement in such a way that something unexpected happens for which E(x') * B(x') = A * R holds. From this we can see that the model is even able to give a natural explanation of the remarkable "elusiveness" of RSPK phenomena.

A MULTIVARIATE PK EXPERIMENT WITH UNIDIRECTIONAL CORRELATED RNGS

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The experiment should be conceived as a conceptual replication of an experimental program which was performed by the author and collaborators during 1979 and 1985 at the Freiburg University (ZP, 1986, 170-206). A further aim of the experiment is to test several theoretical predictions of the model of pragmatic information (MPI) (see pp. 18-22). The main issue of the experiment is to find (significant) nonlocal correlations between independent sets of psychological and physical variables. Such correlations can also be regarded as a PK effect.

Experimental Design

The experiment is a statistical PK experiment with a parallel design: About 300 self-selected subjects each performed 8 runs, with each run containing 996 trials of a binary random sequence produced by two different but correlated random sources (RNG1 and RNG2). The display is an optical and acoustical one.

During the eight runs per session, RNG1 and RNG2 are exchanged systematically in a doubleblind way. Every second run is a nonfeedback run with the same RNG conditions as the previous one.

Both RNGs produce binary Markoff chains (0,1) with an ergotic expectation value of P = 1/2, a variance of s = $\sqrt{(n/12)}$ and

an eigenvalue of gamma = -1/3 (RIP 1982, 165-168). RNG1 uses the thermal noise pulses of a p-n transition in such a way that every pulse contributes to the production of the Markoff chain. With RNG2 only those pulses of RNG1 contribute that surmount a certain level of pulse amplitude. This level and the generation rate (counting time) of the RNG can be chosen arbitrarily. The level was set to 150 units and the counting time to 40 units in most runs. This implies that a run needs about two minutes. With these parameters the count rate of RNG1 is about 1600 counts/unit and 1000 counts/unit for RNG2.

This procedure provides a unidirectional correlation between RNG1 and RNG2 because RNG2 can only produce a count if RNG1 produces one surmounting the given level of amplitude. The probability for a count in RNG2 is therefore about 1000/1600. The Markoff chains are used as the PK target. They represent the momentary pulse rate of the random source (p-n transition). A "1" means that the momentary pulse rate is increasing while a "0" indicates it is decreasing. Thus, a comparison of the two RNGs allows us to find out whether PK changes either the rate of the random pulses or its amplitude or even both (see Hypothesis 3).

The Markoff chains produced by RNG1 and RNG2, respectively, are not directly connected to the display. A special pseudorandom sequence (difference set: 83, 41, 20) with a defined autocorrelation function decides the direction of the display, thus defining a "display function" D. This display function is the same for all runs including the nonfeedback runs.

The psychological variables are measured by the "Amsterdamse Biographische Vragenlijst" (ABV) and two versions of the VROPSOM. The ABV and VROPSOM-M are filled out by the subject before the experiment and VROPSOM-O after the experiment. The ABV is displayed item by item on the computer screen and the subject gives the answer by pushing a button. Before starting each run the subject has to give a confidence score on his or her "PK abilities."

The Markoff chains of both RNGs of all runs and the answers on the ABV questionnaire are binarily coded and stored on diskette. After every session day a safety copy of the diskette is made. The experimenter is kept blind to the results until the end of the whole study. Moreover, he is not present in the room with the subject during the experimental session. The subjects get trial-by-trial feedback on the display (colored computer screen with sound) and an additional verbal feedback on the computer screen after each feedback run. The subject is not informed about the nonfeedback runs that take place in the pause between the feedback runs.

The whole session takes about 45 minutes. A standardized instruction is given by the experimenter.

Protections Against Fraudulent Actions

Any possible fraudulent action of a subject on the computer system would stop or even destroy the program, which cannot be booted again without special knowledge. Such actions could easily be detected. Any purposeful fraudulent actions of the subject on the results are impossible because of the unknown coding of the data.

Hypotheses

(1) It is assumed that persons with high scoring in extraversion or masculinity and/or low scoring in neuroticism and depressivity show a higher hit rate than those with antagonistic traits.

(2) It is assumed that under nonfeedback conditions only random correlations can occur. It is expected that the feedback condition (runs 1, 3, 5, 7) will show about twice as many significant correlations than nonfeedback conditions (runs 2, 4, 6, 8).

(3) It is assumed that RNG2 shows higher correlations to psychological variables than does RNG1.

$$r(RNG2) > r(RNG1)$$

(4) It is assumed that the display function D shows higher correlations with the psychological variables than the "normal" hit rate for both RNG1 and RNG2, but still $r(RNG2) > r(RNG1)$.

$$r(D(RNG1)) > r(RNG1)$$
$$r(D(RNG2)) > r(RNG2)$$
$$r(D(RNG2)) > r(D(RNG1))$$

Methods

For the evaluation of the ABV and VROPSOM, standard scales will be used if it should not turn out that their factor structure differs too much from the standard structure. Any psychological evaluation, however, will be done independently of the evaluation of the physical variables and vice versa.

For the correlation of the psychological and the physical variables, Spearman's rank correlation coefficients and rank variance analysis will be used, which is similar to the evaluation of the Freiburg experiment.

The use of the display function still needs some further investigation, but it will be developed independently from the data base of the experiment. Nevertheless, it seems reasonable to use

the sum of the autocorrelation function of the Markoff sequence (RNG1 or RNG2) in question but only in the region where the autocorrelation function of the display function (the difference set) differs from the zero level.

$$d_j = \sum_{i=492}^{504} g_j\,(i)$$

For the evaluation of the correlation coefficients, r, and the variance analysis of the psychological (independent) and the physical (dependent) variables, the scores of runs 1, 3, 5, and 7, respectively, will be added to runs 2, 4, 6, 8 for every subject.

An overall evaluation is planned for the total scores of all subjects under feedback versus nonfeedback conditions, however, for both RNGs separately.

Discussion

It should be noticed that no result will be expected if the total variance of the psychological variables in relation to their gauge distribution will be too small. This could happen if the self-selection of the subject sample is too biased; for instance, if only psychology students with a special attitude have contributed.

Re Hypothesis 1: It is not clear whether the questionnaires used measure the same personality constructs as the FPI in the Freiburg experiment did. These questionnaires, however, were chosen because they seem to be rather similar at least in relation to the meaning or content of the items. Thus, the content of the correlations which might occur in the experiment should only be validated in relation to a certain tendency which is indicated in Hypothesis 1. This means that this hypothesis is a rather vague one.

Re Hypothesis 2: The feedback hypothesis is the most important one. Only if a difference is observed between the feedback and the nonfeedback conditions should it be assumed that a "PK effect" has occurred, unless a high number of significant correlations between psychological and physical variables would indicate the occurrence of a nonfeedback PK effect (for instance, by a significant canonical analysis). Such a result would contradict both OTs and MPI. However, it is not specified which variables should show a difference. Otherwise, the other hypotheses could not be refuted.

Re Hypothesis 3: If this hypothesis should be refuted, one could conclude that the fluctuation model must be wrong. It assumes that fluctuations that are already present are more sensitive

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to PK. This, however, would not necessarily refute the whole MPI since this assumption is a very specific one. The conventional OTs assume that RNG1 would exhibit a larger PK effect because the conditional probability to obtain a pulse with a given amplitude is smaller than the probability to obtain a pulse without further specifications. The MPI, however, assumes that the additional concept of amplitude includes a further hierarchical description level (or level of differentiation) of the system which may lead to further uncertainty (or further degrees of freedom) which could contribute to the PK correlation.

Re Hypothesis 4: A refutation of this hypothesis would cause rather serious arguments against the MPI since the concept of pragmatic information is a central one. Nevertheless, it may still be a matter of discussion whether the used operationalization of the display function is sufficiently appropriate.

THE REMOTE ACTION PROJECT*

AN ETHNOGRAPHIC STUDY OF THE "REMOTE ACTION PROJECT": A PSYCHOKINESIS TRAINING PROGRAM**

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Ethnographic research was undertaken by a team of anthropologists from the California Institute of Integral Studies supervised by Program Director Lisa Faithorn, on the "Remote Action (RA) Project," an on-going psychokinesis training program directed by Dr. Julian Isaacs at John F. Kennedy University.

The RA Project aims at substantiating the existence and replicability of the Piezo Remote Action effect. Its primary goal is to train individuals to voluntarily produce RA effects in a collaborating parapsychology laboratory which is performing a proof-oriented investigation of PK. Another goal is to demonstrate that this form of psychokinesis is a trainable skill--that people who possess a latent PK ability can be taught to improve and better control PK production.

Purpose

The purpose of the ethnographic study was to collect data on the attitudes, beliefs, values, and strategies of participants in the RA Project. It was theorized that data analysis would reveal fundamental, implicit views of reality held by experimenters and trainees, determining their behavior with respect to the project and providing a basis from which to interpret their own experience with the project. It was further postulated that the research team and their

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